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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/064,238

06/25/2002

Claymens Lee

8868-US-PA

6388

31561

7590

05/31/2006

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE  
7 FLOOR-1, NO. 100  
ROOSEVELT ROAD, SECTION 2  
TAIPEI, 100  
TAIWAN

EXAMINER

FERRIS, DERRICK W

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/064,238 | <b>Applicant(s)</b><br>LEE, CLAYMENS |  |
|                              | <b>Examiner</b><br>Derrick W. Ferris | <b>Art Unit</b><br>2616              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. This Office action is in response to applicant's paper filed 4/26/2006. **Claims 1-16** as originally filed are still in consideration for this application.
2. Examiner does **not withdraw** the anticipated rejection to *Farhang-Boroujeny et al.* The following comments fully address applicant's arguments with respect to the rejection. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the decimator 238 is not coupled *before* the echo canceller as mentioned at the top of page 3 of applicant's arguments) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In particular, the structure of an echo canceller and the relationship of the echo canceller to the other elements of the claim is not clearly recited in the independent claims. As such, a better characterization of applicant's argument is illustrated in applicant's figure 4 (and not figure 3) where the echo canceller 402 is *before* the decimator 404. The above distinction in figure 4 is not recited in the claims. As such, the limitation is met since an echo canceller is taught as EC 230 (and not the EC filter 234) such that all the elements recited in the claim are presented in EC 230 meeting the claim limitation and an input data list is presented to the decimator 238 in order to form  $f_s$  (J/K). Although not argued, the list is further passed on to the upsampler 240 (i.e., multiply frequency sampling operation) via the error signal in combination since the signal is reconstructed using

Art Unit: 2616

subtractor 236, see e.g., columns 5 and 6 (i.e., the “error” signal is fed back into the EC FIR filter 234). Hence the rejection is maintained.

### DETAILED ACTION

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-16** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6853,626 B1 to *Farhang-Boroujeny et al.* (“*Farhang-Boroujeny*”).

As to **claim 1**, see e.g., figure 2 of *Farhang-Boroujeny*. In particular, *Farhang-Boroujeny* teaches applicant’s N times divide frequency sampling operation (i.e., decimation) as decimate 238; N times multiple frequency device as upsample 236; echo canceller as part of EC filter 234; and a low pass filter as interpolation filter 242.

As to **claim 2**, see e.g., figure 2 where the decimate 238 is adjustable as K/J.

As to **claim 3**, see e.g., figure 2 where the upsample 240 is adjustable as K/J.

As to **claim 4**, the interpolation filter helps filter out noise and is thus used eliminate-end echo signal, see e.g., column 6, lines 1-19.

As to **claim 5**, the interpolation filter is a low pass filter, see e.g., column 6, lines 1-19.

Art Unit: 2616

As to **claim 6**, see e.g., column 6, lines 20-41 which teaches that the FIR filter is sent to filter at fs(J/2K).

As to **claim 7**, see e.g., figure 2 which houses both a sender and receiver thus teaching a transceiver.

As to **claim 8**, see e.g., column 5, lines 16-40 which teaches that the echo canceller is a FIR.

As to **claim 9**, see similar rejection to claim 1.

As to **claim 10**, see similar rejection to claim 2.

As to **claim 11**, see similar rejection to claim 3.

As to **claim 12**, see similar rejection to claim 4.

As to **claim 13**, see similar rejection to claim 5.

As to **claim 14**, see similar rejection to claim 6.

As to **claim 15**, see similar rejection to claim 7.

As to **claim 16**, see similar rejection to claim 8.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2616

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

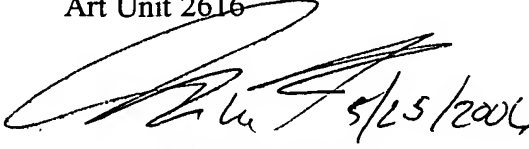
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571)272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
DWF

Derrick W. Ferris  
Examiner  
Art Unit 2616

  
**DERRICK FERRIS**  
**PATENT EXAMINER**